DISTRIBUTED COMPUTING SERVICES PLATFORM

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present invention claims priority from United States provisional application Ser. No. 60/213,562, filed on Jun. 22, 2000 and entitled "Distributed Computing Services Platform", which provisional application is incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

[0002] 1. The Field of the Invention

[0003] The present invention relates to the field of communications. More specifically, the present invention describes a distributed computing services platform for facilitating improved communications and collaboration across computer networks (such as the Internet).

[0004] 2. The Prior State of the Art

[0005] The Internet has revolutionized the way people communicate and has ushered in a new era in human history often termed the "information age." In essence, the Internet includes a large constellation of networked computers that are spread out over much of the world. Sophisticated computers, software, and networking technology have made communication over the Internet fairly straight forward from the viewpoint of the end user.

[0006] For example, a user can compose an electronic mail or "e-mail" message using commonly available electronic mail software. After specifying the address of the recipient(s), the user simply transmits the message by, for example, using a mouse to activate a "send" icon on the computer display. The message is then routed over the Internet from one computer system to the next until the message arrives at the destination computing device.

[0007] In addition, conventional browser software allows the user to request information such as a Web page from remote computers. After the user enters the address of the Web page, the browser then causes the user's computer to transmit the request using widely recognized communication protocols such as, for example, HyperText Transport Protocol (HTTP). The request is then routed using the destination address to the destination computer or Web site.

[0008] The remote Web site evaluates the request and returns an appropriate response often including the information requested. The requested Web page is returned in a format, such as HyperText Markup Language ("HTML") format, that is parsable by the Web browser. The parsed Web page is then rendered and presented to the user on the computer display.

[0009] Web browser software is available for many types of widely available computers including general purpose personal computers (PCs), television set top boxes, personal digital assistants, cellular telephones and the like. In addition, there are millions of Web sites that are publicly available to anyone with access to such conventional browser software and an Internet connection. These factors combine to allow more people more access to more information than ever before.

[0010] In sum, the Internet provides simple global connectivity for a large number of users. While the current use of the Internet provides many advantages to businesses and individuals alike in providing access to information, the Internet could be more efficiently used to access and use information in a more flexible manner. For example, one dominant use of the Internet can generally be characterized as "read-only." After a publisher creates and publishes a Web page, the Internet essentially serves as a presentation tool that allows users to read the information on the page. The Internet itself provides little or no capabilities for the user to write, edit or otherwise interact with the Web Page.

[0011] Also, while the Internet allows individuals to directly access millions of Web sites, there are few, if any, standards that allow Web sites to communicate or share information with one another. Each Web site typically maintains different ID's, preferences, data formats and schemas, connectivity and so forth. For this reason, it can take significant time and expense to enable interaction between two Web sites, let alone numerous Web sites. Thus, Web sites typically do not harvest the vast and rich spectrum of information offered by other Web sites on the Internet. Instead, many Web sites are forced to independently collect and compile information into a somewhat static form, even though that is already available from different Web sites. Therefore, although there is widespread connectivity between a vast number of sites and computers via the Internet, little has been done to take advantage of such connectivity in the form of automated interaction and the revolutionary advances that could be enabled remain largely unrealized.

[0012] The efficiency and flexibility of the Internet is also limited by other factors constraining users' access to information and services. For example, a user equipped with a personal computer may have access to a significantly larger set of Internet resources than the user of a cellular phone due, for example, to constraints associated with the underlying platform. When platform constraints are not an issue, other problems (such as security and storage) may still limit access to Internet resources by the same user and, even more so, by different users, across platforms. Even if the same information and services can be accessed, overall efficiency and flexibility are impaired when, for example, the user must negotiate a significantly different user interface or follow different protocols to access those resources.

[0013] Further, Internet users are often confronted with too much information that is difficult to filter and organize. For example, it is common for a web search engine to return thousands of possible "hits" to a simple query. The user must manually filter through these hits to find relevant information. Also, users' email in-boxes are often bombarded with junk e-mail or "spam" that are often irrelevant or low priority to the user. Although some in-box filters exist, the user must still scan through the remaining messages in order to find the high priority or important messages.

[0014] Therefore, there is a need for systems and methods that facilitate greater and more consistent user interaction and collaboration, and inter-Web site communication over the Internet. There is also a need for more personalized, relevant information to be provided to users, without overwhelming users with too much information.